

Fig. 1

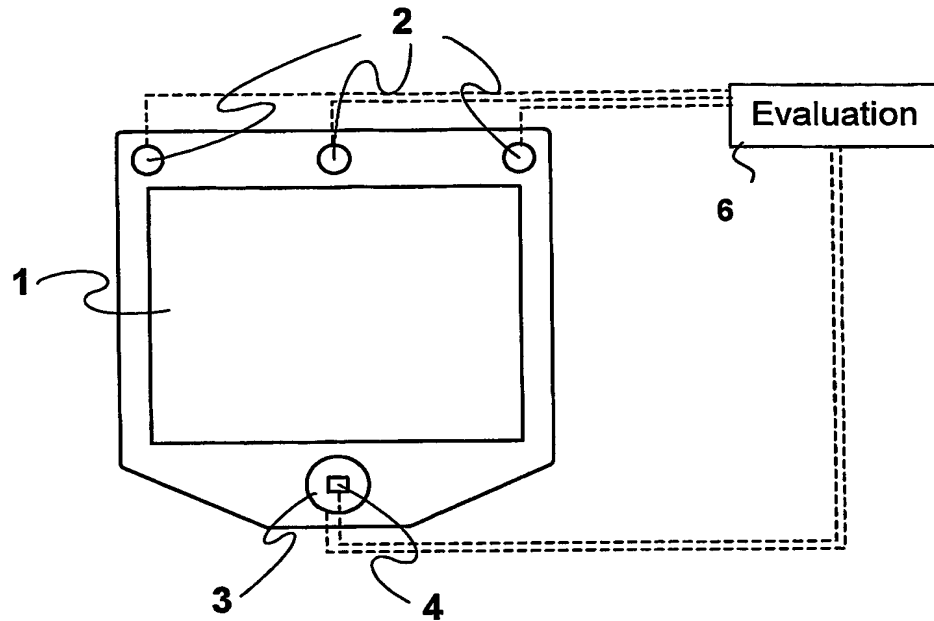
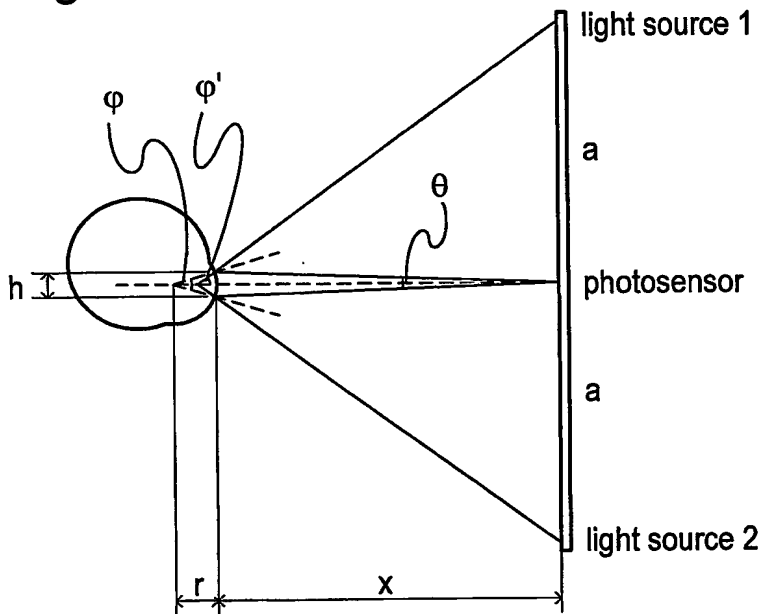


Fig. 2



Let  $d$  be the distance between the reflections of the two light sources in the two-dimensional picture captured by the photosensor

$$d \sim \theta$$

$$h \approx x\theta$$

$$h = 2r \sin\left(\frac{\varphi}{2}\right)$$

$$\varphi = \varphi' - \frac{\theta}{2} \approx \varphi'$$

$$\varphi' \approx \arctan\left(\frac{a}{x}\right)$$

$$d \sim \frac{r}{x} \sin\left[\frac{1}{2} \arctan\left(\frac{a}{x}\right)\right]$$

Fig. 3a

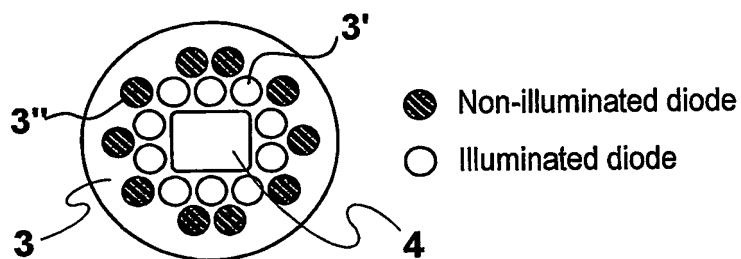


Fig. 3b

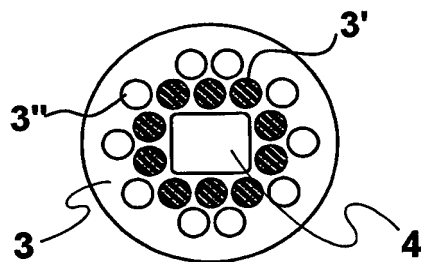


Fig. 4a

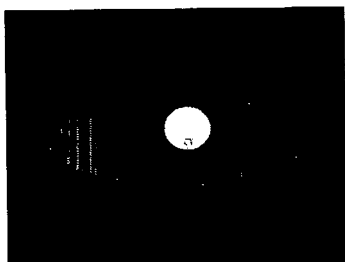
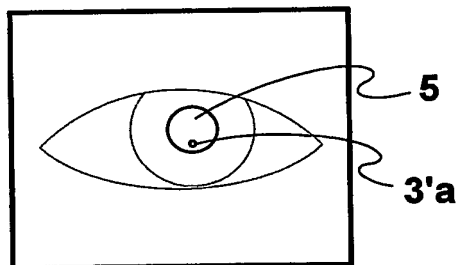


Image of an eye when the illumination is in light setting position (i)

Fig. 4b



Boundary lines obtained from image of Fig. 4a

Fig. 5a

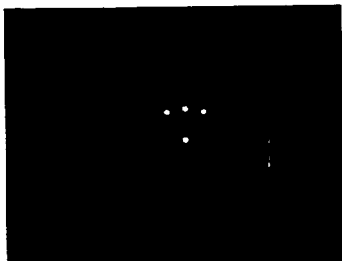
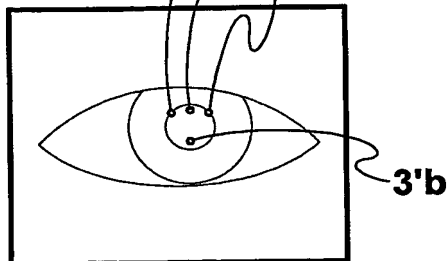


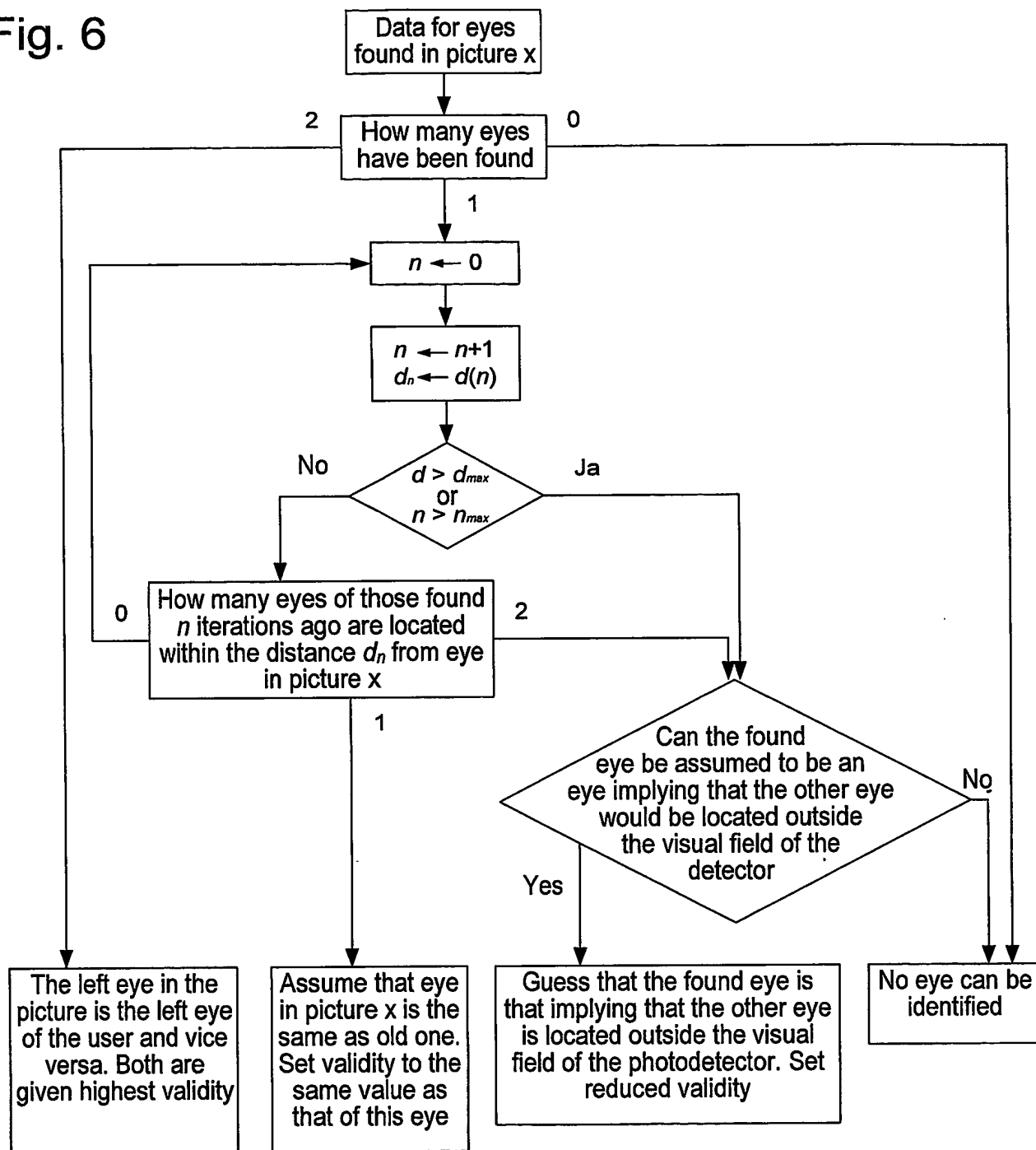
Image of an eye when the illumination is in light setting position (ii)

Fig. 5b



Boundary lines obtained from image of Fig. 5a

Fig. 6



$d(n)$  = maximum allowable distance for  $n$  iterations according to velocity limit for movement of eye [pixels]

$d_{max}$  = maximum possible distance in picture for  $n$  iterations [pixels]

$n_{max}$  = largest number of iterations considered

Fig. 7

